the WATER TAP
WASHINGTON'S DRINKING WATER NEWSLETTER

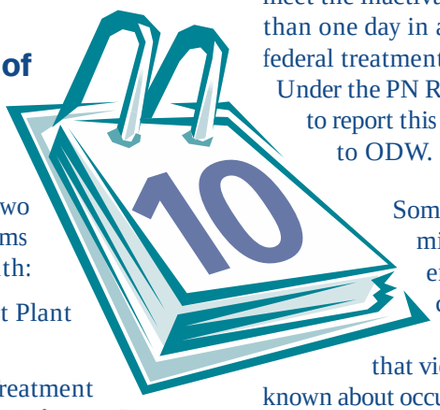
Monthly Reporting for Surface Water Systems

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Volume 19, #2 - March 2004

Operators of surface water treatment plants must document the performance of their plants and report the information every month to the Office of Drinking Water (ODW). Here are some helpful hints to remember.

Circle the 10th of the month on your calendar



By the 10th of each month, send ODW two completed report forms for the previous month:

- Water Treatment Plant Monthly Report
- Surface Water Treatment Rule Monthly Disinfection Report

Please double check these forms for missing data or errors and make sure that all entries are legible. Use the comment column to report unusual circumstances, clarify reported values, or note if the plant is off-line.

The responsible certified operator must sign the forms. If necessary, attach a letter of explanation to avoid confusion or mis-interpretation of the data.

If a treatment plant is off-line for the month, please submit a report form with a notation describing its status. Familiarize yourself with the new Public Notification (PN) Rule to determine when a treatment technique violation must be reported within 24 hours of the event.

CT calculations for chlorinated systems

Get in the habit of doing CT calculations and recording them every day. Failure to meet the inactivation ratio of 1.0 for more than one day in a calendar month is a federal treatment technique violation. Under the PN Rule, a purveyor is required to report this violation within 24 hours to ODW.

Sometimes operators mistakenly wait until the end of the month to calculate all of the daily CT values, only to find that violations they should have known about occurred earlier in the month. If you have a computer spreadsheet, enter the raw data as soon as you have it and review the inactivation ratio. Do this every day.

Remember that daily pH readings must be rounded up to the next highest unit or tenth of a unit. Daily temperature readings should be rounded down to the next full unit expressed in degrees centigrade. The inactivation ratio should be reported to the nearest tenth.

Be sure that there is an entry each day for disinfectant residual entering the distribution system. Every time a coliform sample is taken from

(Continued on page 3)

Hey Dr. Drip, what's a CT Calculation?

CT = the strength of the disinfectant X the contact time between the disinfectant and the water.

CT measures the effectiveness of a disinfection process.

Inside This Issue

The Director's Column

by Rich Hoey - Acting Director

A Year of Change, and More to Come

2003 was a time of significant change for the Office of Drinking Water. Most notably, our director of six years, Gregg Grunenfelder, moved on to a different position within the Division of Environmental Health, and we saw the beginning of a wave of retirements of long-time state employees in key positions. One recent example is the retirement of Bill Liechty, a 28-year veteran of the drinking water program and long-time manager of our Southwest Regional Office. Both of these gentlemen and others leaving our ranks will be sorely missed.

New legislative initiatives

Change also came in the form of new state legislative direction. In mid-2003, the Legislature passed the Municipal Water Law, providing greater water right certainty to water utilities and directing DOH to make several changes to its water system planning program and to develop new water conservation rules for public water systems.

The Office of Drinking Water quickly produced interim guidelines allowing our water system planning program to proceed in accordance with the new law, giving water utilities timely access to the benefits the new law provides. In addition, we worked with a broad range of stakeholders on the creation and composition of an advisory committee to help us develop a new conservation rule.

The Legislature also directed DOH and the Public Works Board to distribute $4 million in new grant funds to municipal water systems for acquisition and rehabilitation of other struggling water systems. Responding to this new legislative direction was one of our greatest accomplishments of 2003. In a matter of three months, the Office of Drinking Water worked with the Public Works Board to launch the Water System Acquisition and Rehabilitation Program (WSARP). To date, 29 applications have been received for over $7 million dollars in eligible projects.

Other key 2003 accomplishments:

- Assistance to 92 public water systems in issuing timely health advisories to almost 50,000 customers.
- Successful deployment of our new data system, SENTRY, an enormous project that began eight years ago.
- Completion of sanitary surveys on over 800 water systems.
- Completion of 29 different training courses to more than 4,600 small water system operators across the state.
- Review and approval of 346 engineering projects and 88 water system plans
- Creation of a new Web-based publication catalog and ordering system.

I am proud of these accomplishments, especially in light of the changes we have seen over the past year. Now a few months into 2004, I believe we are poised to continue our excellent progress.

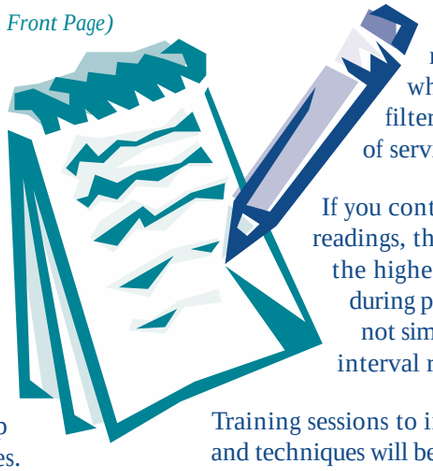
Key focus areas for 2004 include:

- **Preparing for emergency response.** An emergency response framework for Office of Drinking Water staff is already under development, and we will be conducting table top emergency exercises this summer.
- **Improving our data management systems.** We will continue to build upon our success with SENTRY and make more information about public water systems available via the Internet.
- **Keeping pace with sanitary surveys.** As in the past two years, we and our local health partners will conduct more than 850 sanitary surveys in 2004.
- **Continuing to focus on acute contaminants.** Protecting the public from contaminants in drinking water that can pose immediate health threats is one of our highest priorities. We will continue efforts to improve water system compliance with requirements regarding coliform bacteria, nitrate, surface water, and groundwater under the influence of surface water.
- **Implementing the Municipal Water Law.** Along with implementing the many elements of the new law, we will convene an advisory committee to help us develop the new Water-Use Efficiency Rule.
- **Promoting water system consolidation.** Maintaining compliance with drinking water regulations is a major challenge for small water systems. Larger water systems with greater revenue are generally better positioned to ensure compliance over time. With that in mind, we will focus in 2004 on removing barriers and creating incentives for small water systems to consolidate or restructure.

These are just a few key focus areas for 2004. Looking back on our successes over the last few years, I feel very confident about our ability to advance the work of our office even further.

(Surface Water Reporting - continued from Front Page)

distribution, a disinfection residual is required. In addition, on days when coliform samples are not taken, at least one residual sample must be taken from the distribution system.



Turbidity

If you have installed a continuous recording turbidimeter that measures combined filtered water turbidity, take the first reading from recorded data during the first hour after plant start up —preferably within the first 30-minutes. Subsequent readings should be pulled from chart recorders or your SCADA database once every four hours thereafter. For example: If you start up your plant at 8 a.m., report the turbidity recorded at 8:30 a.m., 12:30 p.m., 4:30 p.m., etc.

If your plant has multiple start-ups in a day, special reporting requirements may apply. Please contact your regional engineer for further instructions.

Report turbidity only for the time the filters are actually operating and producing water to the distribution system. Never report turbidity for any period when the filters are off-line, filtering to waste, or otherwise out of service.

If you continuously record turbidity readings, the daily maximum you report is the highest value observed at any time during plant operation during the day—not simply the highest of the four-hour interval readings.

Training sessions to introduce new reporting forms and techniques will be offered this spring. A monthly summary form will be implemented later this year. Watch the mail for the announcement of workshop dates.

If you need a copy of the latest electronic report form or other information, contact your regional office surface water specialist:

Eastern Region - Mike Wilson 509-456-3186

Northwest Region - Nancy Feagin 253-395-6765

Southwest Region - Jim McCauley 360-664-8734

May 18 Satellite Broadcast Training

Stage 1 Disinfectants & Disinfection Byproduct Rule

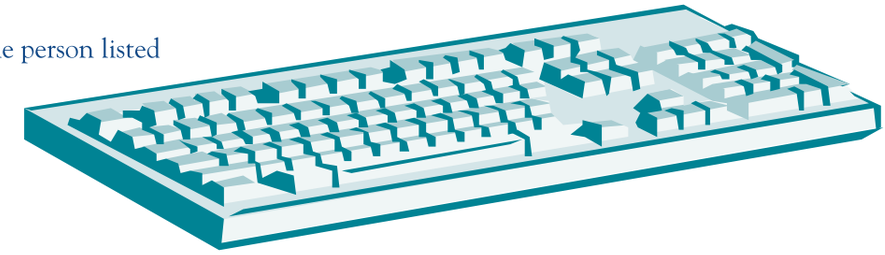
The Environmental Protection Agency will conduct satellite training on the Stage 1 Disinfectants and Disinfection Byproduct Rule (Stage 1 DBPR) from 8 a.m. to 2 p.m. PST May 18.

The training will cover rule requirements for water systems that use chlorine or chloramines in any part of the drinking water treatment process, and the requirements for disinfection byproduct precursors that apply to systems using conventional filtration or softening systems.

The training, which will be followed by an expert panel discussion, is directed at drinking water systems that needed to comply with the rule by Jan. 1. 2004. This includes:

- Surface water systems serving less than 10,000 people.
- Ground water systems under the direct influence of surface water serving less than 10,000 people.
- All ground water systems.

Space is limited. To reserve a slot, contact the person listed for the downlink location of your choice. For training materials, information and a list of downlink sites, visit http://www.epa.gov/safewater/dwa/satellite.html.



Starting up a Seasonal Surface Water System

If you operate a seasonal resort, camp, or park and use a surface water source, a well-planned start-up program can help you avoid problems during your busy season. Your start-up plan should cover five basic elements to make sure your system is reliable and the water is safe to drink:

- Pre-season survey
- Source start-up
- Treatment system start-up
- Distribution system start-up
- Water quality monitoring

Pre-season survey

The first step in starting up your water system is to physically walk through the entire system, from source to tap, writing down any repairs that are needed. You can use this checklist:

Intake

❑ Check for damage and clear accumulated debris away from the intake.

❑ Inspect the watershed, especially around the intake, for any potential sources of contamination.

Transmission Line

❑ Check for exposed pipe or any obvious damage.

❑ Exercise each transmission line valve by cycling the valve completely opened and closed.

Treatment Plant Building

❑ Inspect and look for damage, safety hazards, or signs of rodent infestation.

❑ Make sure the building is clean, secure, and protected from unauthorized access.

Distribution System

❑ Check the interior and exterior of the storage tank for cleanliness and damage. Check that the storage tank hatch is securely locked and sealed and that all storage tank openings are screened.

❑ Walk the distribution system, looking for exposed lines or other obvious problems.

❑ Locate, check, and exercise all distribution valves.

❑ Inspect any backflow preventers for freeze damage and make sure that all petcocks are closed. Arrange to have each assembly tested by a certified backflow assembly tester once the system is operational.

Action Items

End the survey by making all of the repairs you identified and draining and cleaning the tank if necessary.

Source start-up

Before you begin, tell everyone on-site that you are starting up the water system and that the water will not be safe to drink until you notify them. Read and record the source meter, and check pumps and other equipment to determine if any routine preventive maintenance is needed.

Treatment system start-up

Proper start-up of your treatment plant is essential to providing safe and reliable drinking water to your users.

❑ Clean chemical feed lines and feed pump valve seats and o-rings. Use a stopwatch and graduated cylinder to check the feed rate of each chemical feed pump.

❑ Check pumps, gauges and other equipment to determine if any routine preventive maintenance is needed. The manufacturer's O&M manual for each piece of equipment will give you this information.

❑ Replace bag and cartridge filters as needed.

❑ Mix fresh chemical solutions. Don't use the leftovers from last year.

❑ Calibrate all instruments, inventory chemicals and supplies, and order chemicals and supplies for the upcoming season.

❑ If you operate a backwashable filter, check the backwash water discharge site and remove solids if necessary.

When all of the equipment is ready, activate the source and treatment. Adjust the filtration process to ensure that the filtered water turbidity meets the treatment goals and regulatory limits for your plant. If you operate a slow sand filtration plant, allow extra time during this step for filter ripening.

Distribution system start-up

Once the treatment system is up and running, it's time to disinfect and flush the distribution system.

Why disinfect? When the distribution system is drained during the off-season, contaminants can enter through leaks, breaks or cross-connections. It is essential to effectively disinfect, flush and test the system before providing water to the public.

Set your chlorinator to temporarily provide a chlorine dose of about 5 mg/l. If necessary, you can add chlorine bleach to the storage tank by hand as it is filling. You can obtain a 5 mg/l chlorine dose by adding 1-1/2 cups of 5-1/4% bleach for every 1000 gallons of storage tank capacity.

Once the tank is full, draw water through the distribution system by running each tap until you smell chlorine. At this point, the chlorine residual in the distribution system should be at least 2 mg/l. When this step is complete, remember to adjust the chlorine feed pump back to its normal range. Let the chlorinated water stand in the tank and piping for 24 hours and flush the system.

Why flush? Flushing removes sediment, debris and colored water from the system. Moving out from the treatment plant, flush each tap in the system until the water runs clear and the chlorine residual returns to normal levels. While flushing, keep a sharp eye on the tank level so the system is not de-pressurized.

During the flushing process make sure you properly dispose of the chlorinated water to avoid flooding or contaminating the environment. Chlorine is toxic to fish, so carefully follow dechlorination procedures before discharging to a river, lake or stream.

Water Quality Monitoring

At least two weeks before opening your camp or park, and after disinfection and flushing are complete, test the system for coliform bacteria. Make sure you use proper sampling techniques.

Before collecting the sample, measure the chlorine residual. It should be at your normal operating level.

Take one sample from the source before treatment and at least two samples from the distribution system.

On the lab slip, label the type of sample "raw source water" for the source sample and "other: investigative" for the distribution samples.

While you are waiting for the test results, assemble all your daily log sheets and DOH monthly report forms. You can also use this time to collect any other needed water quality samples such as nitrate.

When the distribution system sample results come back satisfactory, the system is ready to go. If the test results show that bacteria are present, contact your regional office for assistance.

Resources for more information:

- American Water Works Association Disinfection Standards: Water Mains (C-651-99) and Water Storage Facilities (C652-92), http://www.awwa.org/bookstore/Category.cfm?cat=ALLSTD
- Coliform Sampling Procedure, DOH Publication 331-225, July 2003
- Emergency Disinfection of Small Systems, DOH Publication 331-242, December 2003
- Fact Sheet: Troubleshooting Checklist for Coliform Contamination, DOH Publication 331-180, September 2002

Regulatory News

Recently adopted regulations

Operating Permits

On January 12, 2004 the Office of Drinking Water held a public hearing on a proposal to revise the Drinking Water Operating Permit Regulations (chapter 246-294 WAC) to reflect a change in permit categories to provide alternatives for water systems that lack design approval but are operating at a level of acceptable compliance. The rule is also updated to be consistent with new Group A regulations that have been adopted since the operating permit rule was first adopted in 1993.

The department adopted this rule package on February 13, with an effective date of April 3.

Federal long-term 1 enhanced surface water treatment and arsenic rules

On January 14, 2004 the State Board of Health held a public hearing on a proposal to revise the Group A Public Water System Regulations (chapter 246-290 WAC) to reflect Environmental Protection Agency rules to reduce the amount of arsenic in drinking water from 50 ppb to 10 ppb and improve control of microbial contaminants in surface water systems that serve fewer than 10,000 people.

The board adopted this rule package as a result of the public hearing. The rule was filed with the Code Reviser on January 30, 2004 and was effective March 1.

Future revisions in the works

Water Works Operator Certification

The Office of Drinking Water is now working on revisions clarifying the Department of Health's revocation and suspension authority to better address enforcement actions against certified water works operators.

Key issues to be addressed are:

- A clear definition of "gross negligence."
- Additional language requiring submission of a Code of Ethics.
- Revised definition of "relevancy."
- Revision of the "revocation and suspension" section.

Adoption of the operator certification revisions is planned for the end of 2004.

3.2% fee increase proposed for group A systems

A proposed fee increase is scheduled for public hearing in April 2004. The affected regulations are:

- Water System Evaluation and Project Review and Approval Fees (WAC 246-290-990)
- Water Works Certification Fees (WAC 246-292-160)

The Office of Drinking Water must periodically adjust fees that support the services it provides in order to guarantee it has sufficient revenue to fulfill its obligation to protect public health. The Department of Health is authorized under RCW 43.20B.020 to charge fees that may be sufficient to cover the full cost of services provided or may be charged on an ability-to-pay basis.

Under RCW 43.20.250, it is the policy of Washington state that the cost of each professional, occupational or business licensing program be fully borne by the members of the profession, occupation or business.

The fiscal growth factor limit (Initiative 601) for fiscal year 2004 is 3.2 percent. All fees will be raised to this limit.

The last annual fee increase adopted by the Office of Drinking Water was July 11, 2003.

A public hearing on the proposed fee increase will be held at 9 a.m. on April 12 at the Department of Health, Point Plaza East, 310 Israel Road SE, Tumwater, WA 98501.

For more information

Contact Theresa Phillips at 360-236-3147 or by email theresa.phillips@doh.wa.gov

WFI - Primary Contact and Owner

What's the difference?

The Water Facility Inventory (WFI) is the primary tool the Office of Drinking Water has for gathering and maintaining information about each water system in Washington. The WFI form contains two different sets of information used for contacting water systems:

1. The owner or owner's representative
2. The primary contact person

Sometimes these people are one and the same, but often they are not. Both sets of information are important for water system business and communications.

Owner or owner's representative

The owner is the legal owner of the water system. The owner's representative is a designated person acting in the name of, and in the interests of, the owner.

The Office of Drinking Water sends operating permits, annual fee statements, and formal compliance documents to this person. We will also contact the owner or the owner's representative if the primary contact person cannot be reached or if official mail is returned.

It is important for us to know who the actual owner of the system is and how to make contact with either the owner or the owner's representative (e.g. secretary of the association or chair of the board or commission) regarding emergencies or compliance issues.

Primary contact person

This is the key person the Office of Drinking Water will contact regarding water quality problems, emergencies and day-to-day operations of the water system. Most routine mailings, such as the Water Tap newsletter, WFI, Water Quality Monitoring Report (WQMR), various water quality monitoring, complaint, and project review and approval letters, are sent to the primary contact.

Sometimes the primary contact person is also the system's certified or contract operator; however, this is not always the case.

If the primary contact person is not the legal owner of the system, he or she should not be listed as the owner or owner's representative.

The primary contact person should share all official water system communications with the owner or owner's representative and with the system's certified or contract owner in a timely manner. This includes routine water system information and correspondence related to water quality or system operations.

There should be formal, written information-sharing agreements between the designated primary contact, certified or contract operator, and owner or owner's representative. Any such agreements should be included in the water system's operation and administrative policies.

The importance of an accurate WFI cannot be over-emphasized in our continuing efforts to assure safe and reliable drinking water. If you have questions regarding a particular situation, please contact your Office of Drinking Water regional office for advice.

Municipal Water Law Implementation Proceeds

The Office of Drinking Water has made significant progress implementing the 2003 Municipal Water Law. As this process unfolds, it has become clear that to be successful, we must expand our perspective of public health to include related elements of water resource management and environmental stewardship. We are committed to meeting this challenge. To date we have:

- Developed interim direction for review and approval of utility planning documents.
- Told all utilities currently in the planning process what revisions they must make to meet requirements of the new law.
- Selected members of the Water Supply Advisory Committee (WSAC) to serve on the Water-Use Efficiency Subcommittee.

Some new Web pages have more information about these efforts and the progress of the subcommittee:

The 2003 Municipal Water Law
http://www.doh.wa.gov/ehp/dw/municipal_water/municipal_water_law.htm

Water use efficiency
http://www.doh.wa.gov/ehp/dw/our_main_pages/water_use_efficiency.htm

WSAC-Water-Use Efficiency Subcommittee http://www.doh.wa.gov/ehp/dw/municipal_water/water_use_efficiency_rule.htm

In the coming months, we will focus on:

- Working with the subcommittee to develop recommendations for the water use efficiency rule.
- Finalizing procedures with the Department of Ecology related to water rights.
- Working with the WSAC to refine the procedural requirements related to utility planning consistency with local plans and ordinances.

For more information, contact Denise Clifford at 360-236-3098 or Jim Rioux at 360-236-3154.

Group B Regulatory Program to be Reviewed

During 2004, the Office of Drinking Water will be working with stakeholders to comprehensively evaluate the scope of the regulatory program for Group B water systems. A subcommittee of the Environmental Health Director's Water Committee will be involved, as will Group B system owners and operators and other interested parties.

This process will be examining a number of areas that have significant impacts on the regulation of Group B systems. One critical issue will be the review of the Group B arsenic standard.

During 2002 and 2003, local health jurisdictions, under contract with DOH, conducted over 3,200 site visits and inventoried over 3,600 Group B water systems serving 5 or more connections. These efforts produced much valuable information about the condition of Group B systems and also brought recommendations from the participating local health jurisdictions. (See DOH publication #331-243, Group B Project Report.)

Another source of input for the evaluation process will be a July 2000 report by the Water Supply Advisory Committee, *Washington's Drinking Water Program: Recommendations Regarding Scope and Funding* (DOH pub. #331-188). This report included several recommendations on the scope of the regulatory program for Group B water systems.

The Office of Drinking Water plans to present a comprehensive set of recommendations on Group B regulation to the State Board of Health by the spring of 2005.

For more information, contact Dennis Campbell at 360-236-3158 or at dennis.campbell@doh.wa.gov

Funding News

Financing water system improvements

If you plan on making improvements to your water system, it is important to know about all of your financing options. To learn more about the various federal and state programs that can help you plan and finance your project, visit the Infrastructure Assistance Coordinating Council's database, www.infrafunding.wa.gov.

Be sure to apply to all of the programs that could provide financing, especially the Drinking Water State Revolving Fund (DWSRF) and the Public Works Trust Fund. Both applications are due on May 11. These two programs provide the bulk of the resources available for water system improvements in the state. While the two programs are very similar in the financing that they offer, there are distinct differences in eligibility requirement and the terms and conditions offered.

The Public Works Board anticipates that requests for Public Works Trust Fund financing will be more than twice as great as the resources it has to commit. Application forms, program guidelines, and other information on the Public Works Trust Fund are available at http://www.pwb.wa.gov, or from Leslie Hafford at 360-586-4128, leslie.hafford@pwb.wa.gov.

The DWSRF program is jointly managed by DOH and the Public Works Board, and provides loans to community and nonprofit noncommunity water systems for capital improvements that increase public health protection and compliance with drinking water regulations. The basic interest rate is 1.5%. Around $25 million will be available for the 2004 cycle.

The DWSRF is working with the board and the Environmental Protection Agency to maximize the resources it will have for the next cycle. Application forms, program guidelines and the February DWSRF Water Tap are available at http://www.doh.wa.gov/ehp/dw/our_main_pages/dwsrf.htm or from Chris Gagnon, 360-236-3095, chris.gagnon@doh.wa.gov.

Applying to both programs affords your project the best opportunity for financing. If you're fortunate to be selected for both programs, staff from the board and DOH will work with you to select the best option.

Water System Acquisition and Rehabilitation Program (WSARP)

The new WSARP program will commit $4 million in state funds to water system acquisition and rehabilitation projects that address high priority public health issues. Last November, DOH received 33 project applications requesting over $10 million. Since then, we have reviewed the applications for system and project eligibility, and have submitted the prioritized project list to the Public Works Board for review. The board will determine which projects are viable and ready to proceed.

Contracts will be executed following the board's approval of the final funding list. Future funding for the program is unknown at this time. Please contact Chris Gagnon, 360-236-3095, chris.gagnon@doh.wa.gov, for more information.

Local government infrastructure tracking system needs information on your projects

The Public Works Board, the Transportation Improvement Board, and the Infrastructure Assistance Coordinating Council are creating a database to track upcoming local government infrastructure projects. The information will help demonstrate to the Legislature and the public the infrastructure needs of local governments across the state. It will also help state and federal programs track upcoming demands on their resources.

In order for this project to succeed, information from your Capital Facilities Plan, Capital Improvement Plan/Program, Water System Plan, Sewer System Plan or Comprehensive Plan (whichever one you have) is needed for entry into the database. If you do not have information through 2010, any information you can provide starting with 2004 would be helpful. Information provided in an electronic format is best, although any format is acceptable.

Please mail, fax, or email your information to:

Bill Cole
Public Works Board
Post Office Box 48319
711 Capitol Way, Suite 102
Olympia, WA 98504-8319
360-586-4125 – Phone
360-664-3029 – Fax
billc@cted.wa.gov

Seattle Water for Life Event will Support Safe Water Projects in Developing Countries

The Seattle Chapter of Water for People and Water Partners International co-hosted the ninth annual Water for Life reception on Friday, March 26, 2004. Proceeds support the construction of safe water and sanitation projects in the communities of Periyanachipatti, India and Cholusnate, Honduras.

Chuck Clarke, director of Seattle Public Utilities, delivered the keynote address. Gregg Grunenfelder, chief administrator of the DOH Environmental Health Division, served as master of ceremonies.

Seattle Public Utilities, Everett Public Works, and Tacoma Water are co-sponsors of this fundraising reception. During the reception, guests heard live jazz and were treated to hors d'oeuvres prepared by Matt's in the Market and local beer and wine.

The support of many corporate sponsors allows 100% of the funds raised at the event to go directly to safe drinking water projects.

Since 1996, the Water for Life event has supported 12 drinking water projects in rural villages in Central America and India. Two of these projects are under construction and 10 have been completed, benefiting thousands of people.

Nearly 200 people, many from the local water works profession, attended last year's event, which raised over $30,000.

For information, call 206-297-3024, send an email to seattle@water.org, or visit http://www.water.org

Free 2-Day Seminar on Crisis Communication

May 13-14 in Seattle, sponsored by AWWA with funding from EPA

Crisis communications are more important than ever for water utilities facing the usual threats to their service plus the additional challenges posed by terrorism.

This concentrated, interactive two-day seminar will provide valuable help in planning emergency communication and effectively managing situations if disaster does strike. Specifically designed for utility managers and public information personnel, the seminar will provide:

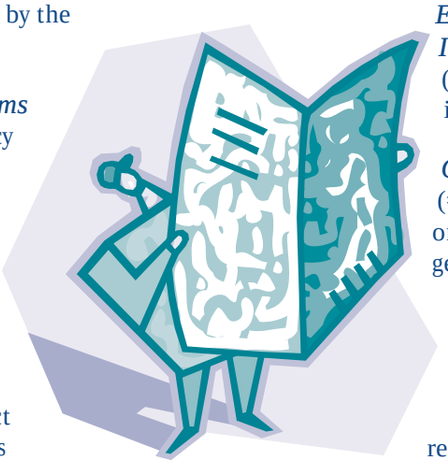
- An overview of crisis identification, planning, and communication.
- Instruction for successful media relations, including how to give effective media interviews.
- Techniques for identifying and promptly communicating with audiences during an emergency.
- Easy-to-use crisis communication planning materials.
- Instruction on working within the Incident Command System structure and the impact of federal Emergency Response Plan requirements.
- Hands-on exercises with drinking water specific emergencies.

Complete information on time, location, agenda, and registration is available online at http://www.awwa.org/education/seminars/index.cfm?SemID=45

New Publications

These are the latest publications produced by the Office of Drinking Water:

Emergency Disinfection of Small Systems (#331-242). Guidelines on when emergency disinfection is needed and how to do it. Provides tables showing how much chlorine bleach to use for disinfecting wells and storage reservoirs.



Group B Project Report: Safe Drinking Water for Small Communities (#331-243). 17-page report describing the results of a two-year project during which 31 local health jurisdictions across the state conducted site visits at over 3,200 small "Group B" drinking water systems.

Existing System Approval (ESA): Workbook (#331-244). A 20-page workbook for existing unapproved and non-expanding Group A drinking water systems to use in requesting approval from the Department of Health.

Existing Systems Approval (ESA): General Information and Workbook Instructions (#331-245). A 17-page document containing instructions for the ESA workbook.

Correct Completion of a Coliform Lab Slip (#331-247). Information for water systems on the correct way to fill out the lab slip that gets submitted with coliform samples.

Sanitary Protection of Reservoirs - Hatches (#331-249). A one-page illustrated guide with tips for small water system operators on how to deal with storage reservoir hatches.

Sanitary Protection of Reservoirs - Vents (#331-250). A one-page illustrated guide with tips for small water system operators on how to deal with storage reservoir vents.

Our publications are available on the Internet at http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/public.htm. If you have questions, call 360-236-3164.

Revised ABC Exams Coming

Revised ABC exams will begin October 2004.

Look for more detailed information in the June issue of Water Tap.

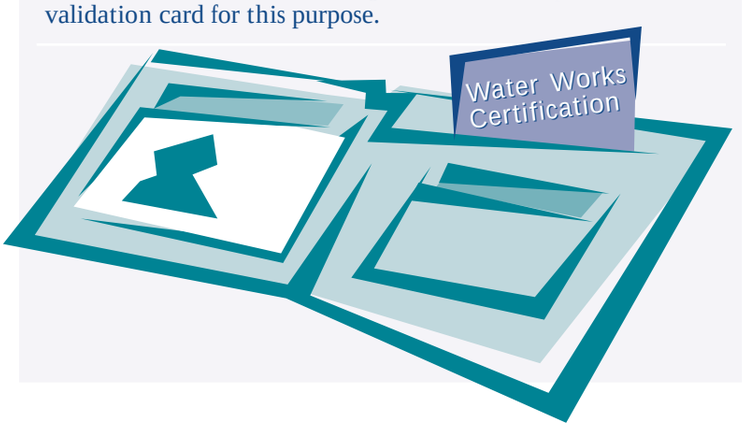
If you need information now, contact the Water Works Certification Program, toll free at 800-525-2536, extension 3 or 4.

Reminder to Operators:
Carry your wallet cards

When you attend training, you must give the training sponsor your water works certification number so they can include it on the participant roster that verifies your attendance.

If your certification number is not on the roster submitted to WETRC by the training sponsor, the training will not be posted to your professional growth transcript.

The Operator Certification Program issues each operator a wallet validation card for this purpose.



Security Update

Vulnerability Assessments and Emergency Response Plans

The federal Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires water systems serving populations between 3,301 and 49,999 to have a vulnerability assessment completed and submitted to the Environmental Protection Agency by June 30, 2004.

These systems must also create or revise an emergency response plan that incorporates the results of the vulnerability assessment. They must verify completion of the plan to EPA within six months of the date they submit their assessment, but no later than December 31, 2004.

The Office of Drinking Water provided vulnerability assessment and emergency response plan training to water systems statewide between June and August of 2003 to help them meet EPA's requirement.

Additional information and training opportunities are available on the Office of Drinking Water Security Web page at http://www.doh.wa.gov/ehp/dw/Security/Water_System_Security.htm. This site also has information about funding security enhancements through the Drinking Water State Revolving Fund program.

July Counter-Terrorism Tabletop Exercises

The Office of Drinking Water has teamed up with engineering firm CH2M Hill to conduct tabletop counter-terrorism exercises statewide during July 2004. These exercises will demonstrate and test emergency response protocols during a simulated event in which drinking water is intentionally contaminated.

The Office of Drinking Water will use the exercises to identify planning weaknesses and resource gaps, improve coordination among local and state responders, clarify roles and responsibilities, and improve individual performance of staff.

Participants in the exercises may include individuals from water utilities, local health jurisdictions, local law enforcement, local first responders, and state and federal agencies. The exercises will help all these people understand one another's roles and build effective relationships.

For more information contact Scott Decker at 360-236-3162.

Training and Education Calendar April - December 2004

Date	*Topics*	*Location*	*Contact*	*Phone #*	*Cost/CEU*
Apr 2	Backflow Assembly Tester Certification Exam	Auburn	WETRC	1-800-562-0858	$180/NA
Apr 6	Chlorination Basics*	Anacortes	ERWOW	1-800-272-5981	$15/0.7*
Apr 6	CCC Water Use Surveys	Elma	WETRC	1-800-562-0858	$295/2.0
Apr 6	Seasonal Water System Start-up	Lacey	ERWOW	1-800-272-5981	Free/TBD
Apr 6-8	Cross Connection Control Basics and Exam Review	Auburn	WETRC	1-800-562-0858	$275/2.1
Apr 6-8	Water Works Basics	Tacoma	WETRC	1-800-562-0858	$275/2.1
Apr 7	Seasonal Water System Start-up	Shelton	ERWOW	1-800-272-5981	Free/TBD
Apr 7-8	Competent Person Cave-in Protection	Richland	WETRC	1-800-562-0858	$210/1.4
Apr 7-8	Process Control and Instrumentation	Tacoma	WETRC	1-800-562-0858	$225/1.4
Apr 8	Chlorination Basics*	Walla Walla	ERWOW	1-800-272-5981	$15/0.7*
Apr 12-13	Advanced BAT Troubleshooting & Repair	Auburn	WETRC	1-800-562-0858	$275/1.4
Apr 12-15	Backflow Assembly Tester Certification Class	Spokane	WETRC	1-800-562-0858	$525/3.0
Apr 12-23	Backflow Assembly Tester Certification Class	Vancouver	WETRC	1-800-562-0858	$525/3.0
Apr 13	Sanitary Survey*	Kennewick	ERWOW	1-800-272-5981	$15/0.7*
Apr 14	Sanitary Survey*	Yakima	ERWOW	1-800-272-5981	$15/0.7*
Apr 14	Seasonal Water System Start-up	Wenatchee	ERWOW	1-800-272-5981	Free/TBD
Apr 14-16	Basic Electrical	Auburn	WETRC	1-800-562-0858	$275/2.1
Apr 14-16	Water and Wastewater Disinfection	Richland	WETRC	1-800-562-0858	$275/2.1
Apr 16	Backflow Assembly Tester Certification Exam	Spokane	WETRC	1-800-562-0858	$180/NA
Apr 19-22	Backflow Assembly Tester Certification Course	Auburn	WETRC	1-800-562-0858	$525/3.0
Apr 20-22	Pump Operation and Maintenance	Wenatchee	WETRC	1-800-562-0858	$275/2.1
Apr 21	Sanitary Survey*	Mt Vernon	ERWOW	1-800-272-5981	$15/0.7*
Apr 21-23	Water Works Basics	Moses Lake	WETRC	1-800-562-0858	$275/2.1
Apr 23	Backflow Assembly Tester Certification Exam	Auburn	WETRC	1-800-562-0858	$180/NA
Apr 24	Backflow Assembly Tester Certification Exam	Vancouver	WETRC	1-800-562-0858	$180/NA
Apr 27	Sanitary Survey*	Wenatchee	ERWOW	1-800-272-5981	$15/0.7*
Apr 27	Asbestos Cement Pipe Work Practice Procedures	Auburn	WETRC	1-800-562-0858	$145/0.7
May 4-6	Water Distribution Certification Exam Review	Moses Lake	WETRC	1-800-562-0858	$265/2.1
May 4-6	Water Distribution Certification Exam Review	Spokane	ERWOW	1-800-272-5981	Call/2.2
May 4-6	Cross Connection Control Specialist Exam Review	Richland	ERWOW	1-800-272-5981	$180/2.1
May 4-6	CCC Water Use Surveys	Elma	WETRC	1-800-562-0858	$295/2.0
May 4-6	Water Treatment Plant Operator or Basic Treatment Plant Operator Certification Exam Review	Olympia	ERWOW	1-800-272-5981	$180/2.1
May 5-6	Advanced BAT Troubleshooting & Repair	Auburn	WETRC	1-800-562-0858	$275/1.4
May 5-7	PNWS-AWWA Annual Conference	Bellevue	Judy Grycko	(503) 655-4075	Call/Call
May 5-7	Basic Electrical	Everett	WETRC	1-800-562-0858	$275/2.1
May 6	Water Distribution Specialist Cert Exam Review*	Auburn	WETRC	1-800-562-0858	$15/0.7*
May 11-13	Water Distribution Certification Exam Review	Tacoma	WETRC	1-800-562-0858	$265/2.1
May 11-13	Water Distribution Certification Exam Review	Richland	ERWOW	1-800-272-5981	Call/2.2
May 11-13	Cross Connection Control Specialist Exam Review	Moses Lake	ERWOW	1-800-272-5981	$180/2.1
May 13	Preparing Your Consumer Confidence Report*	Tacoma	ERWOW	1-800-272-5981	$15/0.7*
May 17	Preparing Your Consumer Confidence Report*	Yakima	ERWOW	1-800-272-5981	$15/0.7*
May 17-20	Backflow Assembly Tester Certification Course	Bellevue	WETRC	1-800-562-0858	$525/3.0
May 18	Asbestos Cement Pipe Work Practice Procedures	Auburn	WETRC	1-800-562-0858	$145/0.7
May 18-20	Water Distribution Certification Exam Review	Mt Vernon	ERWOW	1-800-272-5981	Call/2.2

**These courses are designed for small water systems serving 3,300 people or less.*

Training and Education Calendar April - December 2004

Date	*Topics*	*Location*	*Contact*	*Phone #*	*Cost/CEU*
May 18-20	Cross Connection Control Specialist Exam Review	Olympia	ERWOW	1-800-272-5981	$180/2.1
May 18-20	Water Treatment Plant Operator or Basic Treatment Plant Operator Certification Exam Review	Moses Lake	ERWOW	1-800-272-5981	$180/2.1
May 19-21	Cross Connection Control Basics and Exam Review	Yakima	WETRC	1-800-562-0858	$275/2.1
May 21	Water Distribution Specialist Cert Exam Review*	Moses Lake	WETRC	1-800-562-0858	$15/0.7*
May 21	Backflow Assembly Tester Certification Exam	Bellevue	WETRC	1-800-562-0858	$180/NA
May 25-27	Water Distribution Certification Exam Review	Olympia	ERWOW	1-800-272-5981	Call/2.2
May 25-27	Cross Connection Control Specialist Exam Review	Mt Vernon	ERWOW	1-800-272-5981	$180/2.1
June 1-3	Water and Wastewater Disinfection	Auburn	WETRC	1-800-562-0858	$275/2.1
June 7-10	Backflow Assembly Tester Certification Class	Pasco	WETRC	1-800-562-0858	$525/3.0
June 8	Cross Connection Control and Backflow Basics*	Moses Lake	ERWOW	1-800-272-5981	$15/0.7*
June 9	Cross Connection Control and Backflow Basics*	Yakima	ERWOW	1-800-272-5981	$15/0.7*
June 11	Backflow Assembly Tester Certification Exam	Pasco	WETRC	1-800-562-0858	$180/NA
June 15	Water Sampling Basics*	Mt Vernon	ERWOW	1-800-272-5981	$15/0.7*
June 15-17	Pump Operation and Maintenance	Auburn	WETRC	1-800-562-0858	$275/2.1
June 16	Water Sampling Basics*	Yelm	ERWOW	1-800-272-5981	$15/0.7*
June 17	Water Sampling Basics*	Kelso	ERWOW	1-800-272-5981	$15/0.7*
June 21-22	Advanced BAT Troubleshooting & Repair	Auburn	WETRC	1-800-562-0858	$275/1.4
June 22	Water Sampling Basics*	Kennewick	ERWOW	1-800-272-5981	$15/0.7*
June 22-24	CCC Water Use Surveys	Elma	WETRC	1-800-562-0858	$295/2.0
June 23	Water Sampling Basics*	Walla Walla	ERWOW	1-800-272-5981	$15/0.7*
June 30-Jul 1	Competent Person Cave-in Protection	Tacoma	WETRC	1-800-562-0858	$210/1.4
Jul 6	Water Sampling Basics*	Wenatchee	ERWOW	1-800-272-5981	$15/0.7*
Jul 6	Fire Hydrant Maintenance	Bellingham	ERWOW	1-800-272-5981	Call/TBD
Jul 7	Water Sampling Basics*	Yakima	ERWOW	1-800-272-5981	$15/0.7*
Jul 7	Fire Hydrant Maintenance	Everett	ERWOW	1-800-272-5981	Call/TBD
Jul 13	Water Sampling Basics*	Bremerton	ERWOW	1-800-272-5981	$15/0.7*
Jul 14	Fire Hydrant Maintenance	Liberty Lake	ERWOW	1-800-272-5981	Call/TBD
Jul 15	Fire Hydrant Maintenance	Moses Lake	ERWOW	1-800-272-5981	Call/TBD
Jul 20	Confined Space Entry	Richland	ERWOW	1-800-272-5981	$100/TBD
Jul 28	Anatomy of a Service Connection	Port Angeles	ERWOW	1-800-272-5981	Call/TBD
Jul 29	Anatomy of a Service Connection	Mt Vernon	ERWOW	1-800-272-5981	Call/TBD
Aug 3	Cross Connection Control and Backflow Basics*	Walla Walla	ERWOW	1-800-272-5981	$15/0.7*
Aug 4	Cross Connection Control and Backflow Basics*	Kennewick	ERWOW	1-800-272-5981	$15/0.7*
Aug 17	Fire Hydrant Maintenance	Chelan	ERWOW	1-800-272-5981	Call/TBD
Aug 18	Fire Hydrant Maintenance	Kennewick	ERWOW	1-800-272-5981	Call/TBD
Aug 24	Fire Hydrant Maintenance	Battle Ground	ERWOW	1-800-272-5981	Call/TBD
Aug 25	Fire Hydrant Maintenance	Bremerton	ERWOW	1-800-272-5981	Call/TBD
Sept 7-9	Water Distribution Certification Exam Review	Yakima	ERWOW	1-800-272-5981	Call/2.2
Sept 7-9	Cross Connection Control Specialist Exam Review	Richland	ERWOW	1-800-272-5981	$180/2.1
Sept 7-9	Water Treatment Plant Operator or Basic Treatment Plant Operator Certification Exam Review	Olympia	ERWOW	1-800-272-5981	$180/2.1
Sept 7-9	Water Distribution Certification Exam Review	Everett	WETRC	1-800-562-0858	$265/2.1
Sept 13-14	ERWOW's Fall Conference and Trade Show	Ocean Shores	ERWOW	1-800-272-5981	Call/TBD
Sept 14	Water Distribution Specialist Cert Exam Review*	Spokane	WETRC	1-800-562-0858	$15/0.7*

**These courses are designed for small water systems serving 3,300 people or less.*

Training and Education Calendar April - December 2004

Date	*Topics*	*Location*	*Contact*	*Phone #*	*Cost/CEU*
Sept 15	Storage Tank Disinfection	Ocean Shores	ERWOW	1-800-272-5981	Call/TBD
Sept 15-17	Water Distribution Certification Exam Review	Richland	ERWOW	1-800-272-5981	Call/2.2
Sept 15-17	Cross Connection Control Specialist Exam Review	Moses Lake	ERWOW	1-800-272-5981	$180/2.1
Sept 16	Water Distribution Specialist Cert Exam Review*	Centralia	WETRC	1-800-562-0858	$15/0.7*
Sept 21-23	Water Distribution Certification Exam Review	Mt Vernon	ERWOW	1-800-272-5981	Call/2.2
Sept 21-23	Cross Connection Control Specialist Exam Review	Olympia	ERWOW	1-800-272-5981	$180/2.1
Sept 21-23	Water Treatment Plant Operator or Basic Treatment Plant Operator Certification Exam Review	Moses Lake	ERWOW	1-800-272-5981	$180/2.1
Sept 21-23	Water Distribution Certification Exam Review	Richland	WETRC	1-800-562-0858	$265/2.1
Sept 27-29	Water Distribution Certification Exam Review	Auburn	WETRC	1-800-562-0858	$265/2.1
Sept 28-30	Water Distribution Certification Exam Review	Olympia	ERWOW	1-800-272-5981	Call/2.2
Sept 28	Automatic Control Valves	Richland	ERWOW	1-800-272-5981	Call/TBD
Sept 28-30	Cross Connection Control Specialist Exam Review	Mt Vernon	ERWOW	1-800-272-5981	$180/2.1
Sept 29	Anatomy of a Service Connection	Yakima	ERWOW	1-800-272-5981	Call/TBD
Sept 30	Anatomy of a Service Connection	Tacoma	ERWOW	1-800-272-5981	Call/TBD
Oct 5	Cross Connection Control and Backflow Basics*	Port Angeles	ERWOW	1-800-272-5981	$15/0.7*
Oct 6	Cross Connection Control and Backflow Basics*	Battle Ground	ERWOW	1-800-272-5981	$15/0.7*
Oct 6	Anatomy of a Service Connection	Ritzville	ERWOW	1-800-272-5981	Call/TBD
Oct 7	Anatomy of a Service Connection	Wenatchee	ERWOW	1-800-272-5981	Call/TBD
Oct 26	Anatomy of a Service Connection	Battle Ground	ERWOW	1-800-272-5981	Call/TBD
Oct 28	Anatomy of a Service Connection	Kennewick	ERWOW	1-800-272-5981	Call/TBD
Nov 1-12	Backflow Assembly Tester Certification Class	Vancouver	WETRC	1-800-562-0858	$525/3.0
Nov 2	Storage Tank Disinfection	Bellingham	ERWOW	1-800-272-5981	Call/TBD
Nov 3	Storage Tank Disinfection	Oak Harbor	ERWOW	1-800-272-5981	Call/TBD
Nov 9	Automatic Control Valves	Spokane	ERWOW	1-800-272-5981	Call/TBD
Nov 10	Storage Tank Disinfection	Moses Lake	ERWOW	1-800-272-5981	Call/TBD
Nov 11	Storage Tank Disinfection	Chelan	ERWOW	1-800-272-5981	Call/TBD
Nov 13	Backflow Assembly Tester Certification Exam	Vancouver	WETRC	1-800-562-0858	$180/NA
Nov 16	Storage Tank Disinfection	Chehalis	ERWOW	1-800-272-5981	Call/TBD
Nov 29-Dec 2	Backflow Assembly Tester Certification Class	Pasco	WETRC	1-800-562-0858	$525/3.0
Nov 30	Storage Tank Disinfection	White Salmon	ERWOW	1-800-272-5981	Call/TBD
Dec 2	Storage Tank Disinfection	Spokane	ERWOW	1-800-272-5981	Call/TBD
Dec 3	Backflow Assembly Tester Certification Exam	Pasco	WETRC	1-800-562-0858	$180/NA

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Additional Training Links:

AWWA King County Subsection Web site - http://www.kcawwa.org

ERWOW Web site - http://www.ERWOW.org

WETRC Web site - http://www.wetrc.org

AWWA Pacific Northwest Section - http://www.pnws-awwa.org/

EPA electronic workshops Web site - http://www.epa.gov/safewater/dwa/electronic.html

For the complete Training Calendar visit the Drinking Water Homepage and click on Training - www.doh.wa.gov/ehp/dw

NOTE: Links to external resources are provided as a public service, and do not imply endorsement by the Washington State Department of Health.

Your Editor Moves On

I'm writing this on February 25, two days before I retire after 30 years in state government, so this is the last issue of Water Tap that I get to edit.

Of all the jobs I had in my career, this has been the best. The more I worked with the material in this newsletter and the people who wrote it, the more respect and gratitude I developed for them and for you, the readers.

We mail Water Tap five times a year to almost 10,000 people, and most of you are hands-on involved in running water systems throughout Washington. The work you do has as much to do with our quality of life and our health as anything I can think of.

I hope that the information we gave you through this newsletter helped make your job easier from time to time. I like to think that together, we really have made a difference in your customers' lives, even if most of them don't know it.

Steve Kelso

In This Issue

The following people contributed to the production of this issue of the Water Tap: Cheryl Bergener, Dennis Campbell, Scott Decker, Nancy Feagin, Chris Gagnon, Rich Hoey, Lara Hecklesberg, Abigail Hughes, David Jennings, Jim McCauley, Steve Kelso (Editor), Jolyn Leslie, Bill Liechty, Donna Lynch, Meliss Maxfield, Tanya Mohammadi, Sam Perry, Theresa Phillips, Jim Rioux, Dan Sander, Judy Sides, Rich Siffert, and Paula Smith.

The Department of Health, Office of Drinking Water, publishes the Water Tap to provide information to water system owners, water works operators, and others interested in drinking water. Comments and questions are welcome.

Past issues are available by writing to the editor, the Water Tap, Office of Drinking Water, PO Box 47828, Olympia, WA 98504-7828, or email your request to linda.waring@doh.wa.gov. Past issues are also available on the Web at http://www.doh.wa.gov/ehp/dw/

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